Accurate positions of variable stars in the western part of the Large Magellanic Cloud bar

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Abstract

Positions of 436 stars in the western part of the Large Magellanic Cloud bar are presented.

Three catalogues of variable stars in the Large Magellanic Cloud have been published recently [1, 4, 10]. They are based on observations with CCD detectors for gravitational lensing experiments. Analogous work of Hughes [7] was performed on the base of photographic observations in LMC. In these catalogues, besides photometric data, equatorial coordinates of variable stars are given. The authors of the three cited papers used observations carried out with Schmidt telescopes or the Digitized Sky Survey (DSS) to determine the positions of stars. DSS is also based on observations with Schmidt telescopes. Such star positions can contain systematic errors of 0.6–0.7 arcsec [9, 10].

In order to facilitate the procedure of position determinations, we have compiled a catalogue of reference stars in the western part of the LMC bar. This catalogue contains accurate positions of 436 stars in the Tycho frame [6]. It constitutes a reference net with the mean density of 200 stars per square degree in the bar area and can be a reference catalogue for accurate position determinations with CCD detectors. The overwhelming majority of stars (405) in this catalogue are Harvard variables [5]. Other stars are 18 Dublin variables [2] and 7 variables discovered by Kurochkin et al. [8]. Several reference stars in our catalogue are not variables. In the present report, we give only a brief description of the procedure of catalogue compilation and in the extent necessary for its presentation.

For position determination, we made use of plates taken with two telescopes, the double meniscus astrograph AZT-16 ($F = 207$ cm, $D = 70$ cm, field $5^\circ \times 5^\circ$) at Cerro Roble Astronomical Station and the 1 m reflector ($F = 712$ cm, field diameter 2.5°) at Las Campanas Observatory, both in Chile. Unfortunately it was impossible to measure the plates of the 1 m reflector because of their large size exceeding maximum size of plate which we can measure using our ASCORECORD measuring machine. We have prepared contact film copies of these plates and measured them instead of the plates. The images of Tycho reference stars on the plates of the reflector are too large and cannot be measured accurately. For determination of star positions in the Tycho frame, we used the plates of the astrograph. On the plates of the reflector, only the western half of the LMC bar has been photographed.

Stars in the LMC bar are very crowded, therefore many of them look on the plates as complex images consisting of two or more very close components. The distances between them are less than the image size on the astrograph plates because of the short focal length. If the plates are photographed in different observing conditions, such as differing spectral bands, different exposures, brightness changes due to variability, the complex image looks variously on different plates. After measurements of such plates, we shall get various positions for stars with complex images. The coordinate differences for the double meniscus astrograph can exceed the typical position error by a factor of 3 or even more. As a measure of star crowding influence upon the derived coordinates, we use two values, R_ξ and R_η, of coordinate ranges

$$R_\xi = \xi_{max} - \xi_{min}, \quad R_\eta = \eta_{max} - \eta_{min},$$

where ξ, η are the standard coordinates, derived from measurements of m plates, ξ_{max} and ξ_{min} are maximum and minimum coordinates of a star among these m values (similarly for the η coordinate).

We had 3 measurable astrograph plates (2 in B and 1 in V band). The instrument has no distortion, unlike Schmidt telescopes widely used in deep surveys. The main defect of the astrograph is its short focal length. In order to get the maximal possible accuracy of star positions with our observational material, their determinations were carried out in two stages. At the first one, the so-called "first determination", three plates of the astrograph were measured. 37% of the catalogue stars had, at this stage, at least one value of R_ξ or R_η in excess of 0.65 arcsec. Often these values exceed 1 arcsec. A typical position error for this instrument is 0.2 arcsec. We believe that there are no significant systematic errors because of star crowding in the positions of stars with R_ξ, R_η of 0.5–0.6 arcsec and less, as these values also include errors of measurements. Therefore we regarded final the positions derived in the first determinations with R_ξ, R_η less than 0.65 arcsec.

The coordinates of stars with R_ξ, R_η above 0.65 arcsec have been redetermined at the second stage. For this purpose, we measured film copies of two plates taken with the 1 m reflector in B and in V bands. At this stage, the variable stars with R_ξ, R_η less than 0.4–0.5 arcsec were used as reference ones. The influence of star crowding in this case was less than at the first stage because of the long focal length of the reflector, accordingly the ranges R_ξ, R_η were usually 0.1–0.2 arcsec. Thus, the two stages of our reduction procedure used the best properties of the two telescopes: the astrometric field of the astrograph and the high resolution of the reflector.

Some variable stars formerly regarded as single have proved visual doubles with a typical distance between their components of about 2 arcsec. If we cannot indicate the variable star in such a pair, we give the coordinates of both components.

It is impossible to form a reference frame consisting of variable stars around a star situated at the edge of the area covered by catalogue. Around each of such stars, a second reference frame containing 7–9 nearest field stars in a small area, usually not more than $10' \times 10'$, was formed. The coordinates of the secondary reference stars were determined by means of the same procedure as that used in the first determination, *i.e.* three astrograph plates were measured. We have determined the positions of 26 variable stars using such small reference frames.

The catalogue now presented is not uniform in the sense of position accuracy. The most accurate positions are those for stars with images remeasured on the reflector plates. Their accuracy is 0.1 arcsec, but this value shows only that there is a good agreement of two individual positions. In reality, there are systematical errors in these positions, at least because of the magnitude equation.

Using our catalogue, we have estimated the accuracy of the positions in the GCVS Volume V and in the OGLE catalog [10]. The accuracy of the first catalog is 0.4–0.9 arcsec in the LMC bar, but there are systematic errors of 0.3–1.1 arcsec. The comparison of our catalogue with the OGLE catalogue has shown that both are very accurate in the sense of individual star errors. Mean accuracy of star positions in each catalogue is approximately 0.1 arcsec. However, we have found systematic errors in the OGLE catalogue of 0.3–0.6 arcsec, which vary smoothly in the bar area. The authors wrote about a possibility of errors to 0.6 arcsec due to the reduction procedure using the DSS as the reference means. The comparison of the two catalogues was carried out using 196 stars in common.

After the comparison of our catalogue with the OGLE one, we have found some stars with small values (0.3–0.4 arcsec) of R_ξ, R_η but with significant deviations (to 0.3–0.4 arcsec) of our positions from the OGLE ones, after accounting for the systematic differences between these catalogues. Therefore we have redetermined the positions of 34 such stars previously determined using plates of the astrograph. We have remeasured their images on the plates of the 1 m telescope and have achieved a significant decrease of the position differences with the OGLE catalogue.

Thus, the small values of R_ξ, R_η in the first determination do not signify that there is no noticeable error (to 0.3–0.4 arcsec) because of star crowding in the positions of such stars. Note that the OGLE catalogue was based on observations with a telescope of more than 12 m focal length, therefore the influence of star crowding was significantly less than in the case of the double meniscus astrograph. Having discovered this fact, we have decided to improve our catalogue by redetermination of those star positions which entered it after the first determination. For this end, we had to measure the plates of the 1 m telescope.

However, while working on this project, it would be reasonably to publish the first version of our catalogue, which has been created in the most modern reference frame and is free from systematic errors inherent to those catalogues which are based on observations taken with Schmidt telescopes.

The catalogue presented consist of two parts: a Table 1 of coordinates with identifications and plate information and remarks to individual stars. The catalogue and the remarks are available to the users from http://astrometric.sai.msu.ru/

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The Catalogue

The breaf description of columns.

Column 1 gives the LMC variable star number according to the GCVS, [3]. An asterisk (*) following the number shows that there is a remark for this star. In the Remarks (Part 2), "GCVS position" means the star position given in the cited catalogue.

Columns 2 and 3 contain equatorial coordinates for equinox J2000 referred to the Tycho frame.

Column 4 indicates the telescope with which the plates measured for coordinate determination were taken. **1 m** is the reflector (D=1 m, F=712 cm, field diameter 2.5 deg) at Las Campanas Observatory (Chile), **DMA** is the double meniscus astrograph AZT-16 (D=70 cm, F=207 cm, field 5x5 deg) at Cerro Roble Astronomical Station (Chile), **AR** means that the plates of both telescopes were measured, **vs** means that the second reference frame consists of variable stars, **fs** means that the second reference frame consists of field stars.

Column 5 contains the designations of the stars in various publications: **HV** – [5], **D** – [2], **1,4,... 13** – [8].

Column 6 contains the designations of stars in the new catalogues based upon optical microlensing experiments. These catalogues and corresponding designations are: **EROS** – [4], **MACHO** — [1], **OGLE** – [10].

Table 1

1 LMC No.		2 RA 2000.0 h m s	3 DE 2000.0 o ' "	4 Tele- scope	5 Name	6 Designations in new catalogues
577	*	5 00 14.355	-68 54 32.23	1 m fs	HV12517	OGLE LMC_SC15 35181
619		5 00 46.136	-69 04 54.40	1 m fs	HV5534	OGLE LMC_SC15 81394
626		5 00 55.870	-68 26 20.71	DMA	HV2260	
634		5 01 05.149	-68 27 05.78	DMA	HV2263	
635	*	5 01 00.386	-69 03 42.97	DMA	HV12524	
693	*	5 01 54.611	-68 54 14.06	DMA	HV885	OGLE LMC_SC15 148920
700		5 02 01.463	-68 35 02.53	DMA	HV5537	
728		5 02 21.210	-69 13 16.96	1 m fs	HV12537	OGLE LMC_SC15 185375
729		5 02 29.876	-68 19 31.77	DMA	HV12528	
737		5 02 36.553	-68 44 41.32	1 m vs	HV2276	OGLE LMC_SC14 54419
741		5 02 40.811	-68 24 21.26	DMA	HV2274	
758		5 02 51.537	-68 47 05.15	DMA	HV2280	OGLE LMC_SC14 50505
769		5 03 06.210	-68 21 37.24	DMA	HV12535	
770		5 03 04.981	-68 40 24.60	DMA	HV2281	
771		5 03 01.312	-69 09 01.82	DMA	HV5550	
784		5 03 09.097	-69 13 23.90	DMA	HV2288	OGLE LMC_SC14 84259
799		5 03 25.105	-68 46 20.86	DMA	HV2285	OGLE LMC_SC14 117525
800		5 03 27.389	-68 32 22.22	DMA	HV5547	
805		5 03 26.505	-69 08 55.90	DMA	HV2292	OGLE LMC_SC14 88441
819		5 03 39.017	-68 48 11.94	DMA	HV5553	OGLE LMC_SC14 113861
822		5 03 39.021	-68 59 43.51	DMA	HV2293	
824		5 03 39.754	-69 03 04.87	DMA	HV5556	
828		5 03 49.625	-68 19 56.79	DMA	HV5548	
832		5 03 46.169	-68 52 36.18	DMA	HV2291	OGLE LMC_SC14 109640
835		5 03 49.528	-68 56 02.42	1 m vs	HV889	OGLE LMC_SC14 170002
839		5 03 51.296	-68 52 58.85	1 m vs	HV2295	OGLE LMC_SC14 174756
840	*	5 03 49.589	-69 04 13.89	DMA	HV5557	
841		5 03 53.918	-68 41 23.92	1 m vs	HV5555	
847		5 03 57.316	-68 50 24.04	DMA	HV2296	OGLE LMC_SC14 178619
849		5 04 02.383	-68 21 31.43	DMA	HV2286	
860		5 04 00.822	-69 15 36.24	1 m vs	HV5562	
864		5 04 05.217	-69 04 50.82	DMA	HV890	OGLE LMC_SC14 156632
873		5 04 18.129	-68 33 59.83	DMA	HV2297	
874		5 04 14.149	-69 06 11.36	DMA	HV2300	OGLE LMC_SC14 156647
876		5 04 15.498	-69 01 36.04	DMA	HV891	OGLE LMC_SC14 160625
880	*	5 04 21.112	-68 43 42.62	1 m vs	HV892	OGLE LMC_SC14 182466
883	*	5 04 28.494	-68 18 35.47	DMA	HV12540	
909		5 04 44.920	-68 58 31.45	DMA	HV5566	

Table 1 (continued)

1		2	3	4	5	6
917		5 04 55.861	-68 44 56.06	1 m vs	HV5565	
938		5 05 03.058	-69 18 30.36	DMA	HV2306	
941	*	5 05 06.362	-69 26 30.44	DMA	D292	
942		5 05 06.679	-69 00 52.54	DMA	HV5570	
948		5 05 08.939	-69 15 12.20	DMA	HV2307	OGLE LMC_SC12 46999
951		5 05 14.502	-68 46 07.06	DMA	HV5569	OGLE LMC_SC13 35127
955		5 05 16.053	-68 43 24.43	DMA	HV12321	
977	*	5 05 28.282	-69 21 50.89	DMA	D293	OGLE LMC_SC12 37629
982		5 05 26.372	-69 11 35.08	1 m vs	HV2311	OGLE LMC_SC12 51598
986		5 05 27.012	-69 19 44.30	DMA	HV2313	
995		5 05 34.712	-69 20 29.03	DMA	HV2316	OGLE LMC_SC12 42626
999		5 05 42.004	-68 51 05.14	DMA	HV2309	OGLE LMC_SC13 93279
1002		5 05 45.896	-68 38 54.22	1 m vs	HV11977	
1015		5 05 57.418	-68 26 17.72	DMA	HV2305	OGLE LMC_SC13 125152
1016		5 05 52.393	-69 09 29.83	DMA	HV12322	OGLE LMC_SC13 69033
1018	*	5 05 54.230	-68 53 15.34	DMA	HV11978	
1024		5 06 00.600	-68 42 51.67	1 m vs	HV5575	
1026		5 06 02.886	-68 28 18.77	DMA	HV2308	
1030		5 05 59.283	-69 06 29.00	1 m vs	1	MACHO 5 05 59.3 -69 06 30
1032		5 06 00.886	-69 06 17.08	DMA	HV893	OGLE LMC_SC13 74156
1037	*	5 06 06.212	-69 36 43.21	1 m fs	D78	
1037	*	5 06 06.638	-69 36 42.04	1 m fs	D78	
1040		5 06 16.905	-68 40 33.62	DMA	HV895	OGLE LMC_SC13 173745
1054	*	5 06 27.907	-68 52 18.31	DMA	HV2318	
1055		5 06 28.690	-68 56 40.77	DMA	HV12323	MACHO 5 06 28.5 -68 56 41
1058	*	5 06 25.872	-69 26 46.95	AR vs	HV5597	
1061		5 06 39.884	-68 25 12.67	DMA	HV896	OGLE LMC_SC13 194103
1064		5 06 34.108	-69 30 03.44	DMA	HV5600	
1065		5 06 39.115	-68 57 46.91	1 m vs	HV5589	OGLE LMC_SC13 151864
1073	*	5 06 51.141	-68 17 46.01	DMA	HV5581	
1077	*	5 06 50.322	-68 49 36.98	DMA	HV2323	
1080		5 06 52.968	-68 39 35.47	DMA	HV2319	OGLE LMC_SC13 178831
1081		5 06 52.873	-68 43 25.00	1 m vs	HV2321	OGLE LMC_SC13 173734
1084		5 06 55.281	-68 38 14.06	1 m vs	HV2320	OGLE LMC_SC13 247806
1085		5 06 58.362	-68 20 58.63	DMA	HV5582	
1087		5 06 58.320	-68 36 41.10	DMA	HV898	OGLE LMC_SC13 247787
1088		5 06 56.164	-69 03 15.37	DMA	HV2326	OGLE LMC_SC13 214116
1097		5 07 07.824	-68 53 19.58	DMA	HV899	OGLE LMC_SC13 228645
1106	*	5 07 16.011	-68 53 00.38	1 m vs	HV5602	
1108		5 07 21.181	-68 20 48.07	DMA	HV5592	

Table 1 (continued)

1		2	3	4	5	6
1109		5 07 21.695	-68 20 18.25	DMA	HV2324	OGLE LMC_SC13 267454
1114		5 07 17.960	-69 09 54.20	1 m vs	HV2329	
1115		5 07 23.304	-68 38 30.74	1 m vs	HV2327	OGLE LMC_SC13 247801
1119		5 07 25.764	-68 28 36.68	DMA	HV2325	OGLE LMC_SC13 261046
1120		5 07 26.260	-68 29 13.66	DMA	HV5595	OGLE LMC_SC13 261045
1123		5 07 26.091	-68 53 19.79	DMA	HV2328	OGLE LMC_SC13 228660
1125		5 07 26.682	-68 51 42.03	1 m vs	HV11979	
1129		5 07 32.113	-68 35 36.34	1 m vs	HV5599	
1130		5 07 30.684	-68 47 34.64	DMA	4	
1132		5 07 38.969	-68 20 05.98	DMA	HV5598	
1135		5 07 36.333	-68 57 20.67	DMA	HV5608	
1145	*	5 07 48.909	-68 27 34.14	1 m vs	HV12324	MACHO 5 07 48.9 -68 27 35
1146		5 07 42.171	-69 14 47.88	DMA	HV901	OGLE LMC_SC11 32393
1147		5 07 45.163	-68 55 59.56	DMA	HV11980	
1155		5 07 50.069	-69 02 44.70	1 m vs	6	OGLE LMC_SC11 54739
1165	*	5 08 03.324	-68 37 32.67	DMA	HV5609	
1178		5 08 18.251	-68 46 47.11	DMA	HV904	OGLE LMC_SC11 162232
1182		5 08 15.640	-69 29 04.22	1 m fs	HV5619	MACHO 5 08 15.5 -69 29 06
1184		5 08 22.219	-68 56 52.97	DMA	HV5614	
1185		5 08 16.353	-69 43 03.22	1 m fs	D84	
1216		5 08 50.081	-68 39 42.56	DMA	HV2333	
1219		5 08 49.519	-68 59 59.03	DMA	HV2339	OGLE LMC_SC11 227948
1223		5 08 48.903	-69 39 14.14	1 m vs	HV5624	
1224		5 08 56.063	-68 55 33.01	1 m vs	HV11982	
1225	*	5 08 57.637	-68 50 58.99	1 m vs	8	OGLE LMC_SC11 244566
1226		5 08 54.300	-69 14 33.64	1 m vs	HV11983	OGLE LMC_SC11 206018
1232		5 09 14.041	-68 24 14.46	DMA	HV5616	
1236		5 09 18.347	-68 17 58.54	DMA	HV2335	
1237		5 09 15.956	-68 44 29.43	1 m vs	HV905	OGLE LMC_SC11 257240
1239		5 09 16.015	-68 58 40.58	DMA	HV2342	
1240		5 09 11.309	-69 29 49.39	DMA	HV2346	
1243		5 09 15.136	-69 09 02.59	DMA	HV11985	OGLE LMC_SC11 217136
1255		5 09 26.958	-68 54 12.74	1 m vs	HV906	OGLE LMC_SC11 331546
1257	*	5 09 28.271	-68 47 51.50	DMA vs	HV11984	
1258		5 09 18.912	-69 50 14.25	DMA	HV2350	
1263		5 09 29.194	-68 55 02.47	DMA	HV5622	MACHO 5 09 29.1 -68 55 03
1282		5 09 38.268	-69 07 25.98	DMA	HV11988	
1283		5 09 36.056	-69 24 22.50	1 m vs	HV5632	
1284		5 09 41.985	-68 51 24.75	DMA	HV5626	
1285		5 09 42.187	-68 52 58.32	DMA	HV11986	

Table 1 (continued)

1		2	3	4	5	6
1287		5 09 44.457	-68 46 36.39	DMA	HV5625	
1288		5 09 43.081	-69 00 30.07	1 m vs	HV5629	
1289		5 09 40.117	-69 20 27.77	DMA	HV2348	
1293		5 09 50.352	-68 18 00.39	DMA	HV2340	
1297	*	5 09 50.174	-68 31 17.86	1 m vs	D223	
1300		5 09 51.336	-68 48 44.95	DMA	HV5628	
1303	*	5 09 49.170	-69 18 29.79	DMA vs	D302	
1303	*	5 09 49.369	-69 18 31.44	1 m vs	D302	
1304		5 09 52.035	-69 06 57.50	DMA	HV11989	
1305		5 09 57.566	-68 39 29.82	1 m vs	HV910	
1307		5 09 56.356	-68 59 40.65	DMA	HV908	OGLE LMC_SC11 320035
1310	*	5 10 02.965	-69 01 15.90	DMA	D301	OGLE LMC_SC10 44984
1311		5 09 59.316	-69 08 40.40	1 m vs	HV2349	OGLE LMC_SC10 35605
1320		5 10 05.652	-69 13 14.38	DMA	HV5633	
1321		5 10 09.951	-68 45 35.92	DMA	HV5630	
1351		5 10 36.118	-69 08 17.88	1 m vs	HV911	OGLE LMC_SC10 35590
1352	*	5 10 28.475	-69 53 16.35	DMA	D92	
1356		5 10 43.336	-68 46 50.46	1 m vs	11	
1366		5 10 56.309	-69 01 55.73	DMA	HV2356	OGLE LMC_SC10 119173
1369		5 10 59.466	-68 51 39.51	DMA	HV5642	
1377		5 11 04.188	-69 00 02.92	1 m vs	HV11990	
1385	*	5 11 11.339	-69 12 29.90	1 m vs	HV2359	OGLE LMC_SC10 105186
1386		5 11 10.778	-69 18 37.26	1 m vs	HV11991	OGLE LMC_SC10 95782
1389		5 11 19.878	-68 33 07.21	DMA	D235	
1398		5 11 13.989	-69 59 31.63	DMA	HV2366	
1404		5 11 31.385	-68 35 29.05	DMA	HV2358	
1427	*	5 11 50.188	-68 30 58.99	1 m fs	HV2361	
1428		5 11 47.696	-68 52 53.72	DMA	HV5650	
1429		5 11 47.555	-68 53 34.44	1 m vs	HV11993	
1430		5 11 48.799	-68 46 22.61	1 m vs	HV11992	OGLE LMC_SC10 208170
1440		5 11 53.276	-69 06 48.45	1 m vs	HV913	OGLE LMC_SC10 181906
1445	*	5 11 59.005	-69 03 26.18	1 m vs	HV5651	OGLE LMC_SC10 259946
1448		5 12 01.944	-68 50 38.90	1 m vs	HV2364	OGLE LMC_SC10 278750
1458	*	5 12 07.896	-68 52 02.31	1 m vs	HV11994	OGLE LMC_SC10 274214
1462	*	5 12 15.107	-68 55 52.03	1 m vs	HV11995	
1466		5 12 18.787	-68 52 44.76	DMA	HV2367	OGLE LMC_SC10 274140
1475		5 12 20.635	-69 22 44.89	1 m vs	HV5658	OGLE LMC_SC10 235307
1478		5 12 26.157	-69 13 56.86	1 m vs	HV2371	OGLE LMC_SC10 245236
1485		5 12 28.885	-69 31 07.10	1 m vs	HV5661	
1486		5 12 32.355	-69 20 02.23	DMA	HV5659	

Table 1 (continued)

1	2	3	4	5	6
1487	5 12 34.747	-69 12 33.88	DMA	HV11996	OGLE LMC_SC10 250322
1489 *	5 12 42.167	-68 34 59.34	1 m fs	D244	
1493 *	5 12 48.170	-68 29 06.39	1 m fs	HV2368	
1494	5 12 40.555	-69 36 04.16	DMA	HV5665	
1495	5 12 47.041	-69 06 08.77	1 m vs	HV914	OGLE LMC_SC9 58697
1499 *	5 12 39.279	-69 54 56.40	1 m vs	D99	
1500	5 12 49.781	-69 00 50.06	1 m vs	HV2372	OGLE LMC_SC9 65304
1508	5 12 56.253	-68 57 52.13	DMA	HV5663	OGLE LMC_SC9 71784
1510	5 12 54.796	-69 18 52.37	DMA	HV5666	
1511	5 12 57.652	-69 02 03.50	1 m vs	HV11997	OGLE LMC_SC9 65386
1518	5 13 04.071	-68 46 17.58	DMA	HV2373	OGLE LMC_SC9 90526
1527	5 13 07.855	-69 03 09.25	1 m vs	HV11998	OGLE LMC_SC9 65307
1552	5 13 14.764	-69 14 32.51	1 m vs	HV11999	
1566	5 13 18.668	-69 57 57.08	DMA	HV5673	
1572	5 13 33.061	-68 46 28.90	1 m vs	HV5669	MACHO 5 13 33.1 -68 46 24
1573	5 13 33.694	-68 57 07.22	1 m vs	12	OGLE LMC_SC9 166047
1578	5 13 32.867	-69 21 42.35	DMA	HV2377	
1580	5 13 26.543	-70 04 55.73	1 m vs	HV12568	
1595	5 13 49.183	-69 05 42.43	1 m vs	HV5671	OGLE LMC_SC9 250306
1598	5 13 50.450	-69 05 01.07	DMA	HV2378	OGLE LMC_SC9 250313
1605	5 13 53.009	-69 21 37.28	DMA	HV5676	OGLE LMC_SC9 216934
1606	5 13 56.416	-69 00 55.56	1 m vs	HV12000	OGLE LMC_SC9 257206
1607	5 13 51.726	-69 34 13.16	DMA	HV2385	
1609	5 13 52.790	-69 34 48.78	1 m vs	D102	OGLE LMC_SC9 198335
1611	5 13 49.302	-69 57 52.46	DMA	HV2390	
1614	5 13 50.781	-69 51 47.45	1 m vs	HV5682	
1615	5 13 56.814	-69 15 56.68	1 m vs	HV5675	OGLE LMC_SC9 230584
1618	5 14 00.759	-68 57 56.81	DMA	13	
1629	5 14 04.827	-69 04 42.47	DMA	HV12002	
1631	5 14 06.300	-69 04 25.98	1 m vs	HV2383	OGLE LMC_SC9 250286
1632	5 14 07.537	-69 01 13.03	DMA	HV12001	OGLE LMC_SC9 257262
1634	5 14 11.031	-68 55 34.56	DMA	HV5674	OGLE LMC_SC9 269513
1639	5 14 18.113	-69 12 34.83	DMA	HV915	
1641	5 14 08.971	-70 11 20.96	DMA	HV5693	
1647	5 14 19.440	-69 29 24.32	DMA	HV2392	OGLE LMC_SC9 204218
1648	5 14 12.774	-70 13 38.53	DMA	HV5694	
1653	5 14 25.585	-69 25 02.16	1 m vs	HV2393	OGLE LMC_SC9 210651
1658 *	5 14 29.602	-68 54 35.14	1 m vs	HV5680	OGLE LMC_SC9 379149
1661	5 14 33.261	-69 02 29.92	DMA	HV5681	
1663 *	5 14 29.072	-69 42 23.78	DMA	D307	

Table 1 (continued)

1		2	3	4	5	6
1670		5 14 40.847	-68 46 25.04	DMA	HV2389	
1671		5 14 40.890	-68 47 44.55	DMA	HV5683	
1682		5 14 38.998	-69 30 27.92	1 m vs	HV2396	OGLE LMC_SC9 304869
1684		5 14 43.443	-69 04 25.80	1 m vs	HV5686	OGLE LMC_SC9 357563
1687	*	5 14 42.612	-69 30 56.62	1 m vs	HV2397	OGLE LMC_SC9 304820
1688		5 14 48.936	-68 56 01.66	1 m vs	HV5685	OGLE LMC_SC9 379131
1689	*	5 14 39.899	-69 58 40.20	1 m vs	HV2399	
1689	*	5 14 40.239	-69 58 39.88	1 m vs	HV2399	
1690		5 14 47.195	-69 14 42.09	1 m vs	HV5691	
1693		5 14 52.195	-68 49 03.63	DMA	HV2394	OGLE LMC_SC9 391734
1694		5 14 49.532	-69 12 40.91	1 m vs	HV5692	OGLE LMC_SC9 342099
1697		5 14 49.991	-69 20 30.28	1 m vs	HV5695	
1701		5 14 54.105	-69 03 15.40	DMA	HV5689	OGLE LMC_SC9 365050
1706		5 14 53.437	-69 28 44.41	1 m vs	HV5696	
1709	*	5 14 57.822	-69 35 28.62	1 m vs	HV5698	
1715		5 15 06.805	-69 01 39.26	1 m vs	HV2398	OGLE LMC_SC8 70457
1722		5 15 10.437	-69 22 58.15	DMA	HV2400	OGLE LMC_SC8 33629
1726		5 15 04.604	-70 07 09.92	1 m vs	HV919	
1727		5 15 10.851	-69 32 23.06	DMA	HV2402	OGLE LMC_SC8 21319
1729		5 15 06.873	-70 01 49.69	DMA	HV5704	
1733		5 15 16.882	-69 08 09.01	1 m vs	HV5697	OGLE LMC_SC8 64736
1737		5 15 18.756	-69 13 31.83	DMA	HV917	OGLE LMC_SC8 52582
1738		5 15 21.439	-69 05 00.98	1 m vs	HV918	OGLE LMC_SC8 70430
1742		5 15 20.452	-69 24 42.68	1 m vs	HV12003	OGLE LMC_SC8 33708
1743	*	5 15 26.135	-68 43 02.31	DMA	D258	
1746		5 15 24.697	-69 06 20.29	1 m vs	HV5699	OGLE LMC_SC8 64724
1756		5 15 28.249	-69 13 57.83	1 m vs	HV12004	OGLE LMC_SC8 52604
1762		5 15 24.222	-70 10 51.98	DMA	HV12573	
1769		5 15 38.402	-69 15 19.80	1 m vs	HV920	OGLE LMC_SC8 145094
1773		5 15 40.466	-69 04 27.90	DMA	HV921	OGLE LMC_SC8 162069
1781		5 15 45.464	-69 22 02.86	1 m vs	HV2407	OGLE LMC_SC8 132537
1782		5 15 51.648	-68 40 43.94	1 m fs	HV5701	
1786		5 15 53.806	-69 02 23.01	1 m vs	HV5706	OGLE LMC_SC8 162104
1791		5 15 47.976	-69 55 03.42	DMA	HV2415	
1794		5 15 58.282	-68 58 12.96	DMA	HV2406	OGLE LMC_SC8 167854
1799		5 15 57.026	-69 21 46.53	1 m vs	HV2411	OGLE LMC_SC8 132583
1800		5 15 59.953	-69 04 29.57	1 m vs	HV2408	OGLE LMC_SC8 162087
1801		5 16 00.017	-69 16 01.81	DMA	HV5705	
1805		5 16 04.554	-68 59 50.34	1 m vs	HV2409	OGLE LMC_SC8 167797
1806		5 15 58.020	-69 42 43.53	DMA	HV2416	OGLE LMC_SC8 95310

Table 1 (continued)

1		2	3	4	5	6
1808		5 16 00.202	-69 32 17.61	DMA	HV2414	OGLE LMC_SC8 111959
1812		5 16 08.031	-69 01 51.78	1 m vs	HV2410	OGLE LMC_SC8 162176
1816		5 16 06.442	-69 28 25.16	1 m vs	HV922	OGLE LMC_SC8 118587
1817		5 16 04.971	-69 38 40.84	DMA	HV5710	
1821		5 16 06.502	-69 38 36.96	1 m vs	HV5711	
1824	*	5 16 07.391	-69 41 02.26	DMA	D108	
1826		5 16 09.843	-69 32 39.68	DMA	HV923	OGLE LMC_SC8 111955
1827		5 16 04.011	-70 07 59.73	DMA	HV2419	
1828		5 16 14.719	-69 02 32.76	DMA	HV12995	OGLE LMC_SC8 162101
1833		5 16 16.816	-69 05 04.78	1 m vs	HV5707	
1839		5 16 16.080	-69 43 37.02	1 m vs	HV925	
1840		5 16 10.968	-70 17 36.12	DMA	HV926	
1841		5 16 25.338	-68 49 51.03	1 m vs	HV2413	
1844		5 16 26.520	-68 53 55.78	DMA	HV5708	
1847		5 16 16.708	-70 10 07.05	DMA	HV2421	
1877		5 16 47.424	-69 44 15.16	DMA	HV2423	
1881		5 16 52.680	-69 22 03.94	1 m vs	HV2422	OGLE LMC_SC8 224912
1883	*	5 16 54.919	-69 19 50.44	1 m vs	HV927	OGLE LMC_SC8 224901
1884		5 17 01.255	-68 37 14.57	DMA	HV2418	
1892	*	5 16 58.551	-69 51 17.33	1 m vs	D113	
1894		5 17 02.070	-69 38 51.82	1 m vs	HV5716	OGLE LMC_SC8 285174
1897		5 17 09.642	-69 13 14.05	1 m vs	HV12005	OGLE LMC_SC8 331791
1898		5 17 09.045	-69 32 21.11	1 m vs	HV5717	
1900		5 17 06.943	-70 06 24.92	DMA	HV2431	
1901		5 17 14.547	-69 22 50.41	DMA	HV12007	
1907		5 17 18.116	-69 32 59.60	DMA	HV12006	OGLE LMC_SC8 298699
1909		5 17 16.164	-69 50 34.86	1 m vs	HV2429	
1910		5 17 24.725	-69 20 57.69	DMA	HV2426	OGLE LMC_SC8 318671
1914		5 17 30.764	-69 12 02.41	1 m vs	HV2427	OGLE LMC_SC8 337497
1917		5 17 31.798	-69 25 11.44	1 m vs	HV2430	OGLE LMC_SC7 55965
1918	*	5 17 35.308	-69 09 17.50	1 m vs	HV5718	OGLE LMC_SC7 93939
1922		5 17 38.203	-69 03 29.21	1 m vs	HV5720	
1926	*	5 17 35.704	-69 48 13.35	1 m vs	D115	OGLE LMC_SC7 6487
1927		5 17 44.366	-69 07 11.04	DMA	HV5723	
1928		5 17 38.407	-69 45 19.52	DMA	HV5729	OGLE LMC_SC7 6477
1932	*	5 17 46.357	-69 47 22.26	DMA	D116	
1933		5 17 52.239	-69 02 10.93	DMA	HV5724	
1934		5 17 39.840	-70 21 27.50	DMA	HV12577	
1936		5 17 51.124	-69 29 47.40	DMA	HV2436	EROS 1046
1938		5 17 55.575	-69 07 41.18	DMA	HV5725	

Table 1 (continued)

1		2	3	4	5	6
1943		5 17 53.050	-69 40 35.10	DMA	HV12986	
1947	*	5 17 55.304	-69 45 46.31	1 m vs	HV2442	OGLE LMC_SC7 6475
1948		5 17 56.553	-69 38 53.44	DMA	HV2439	OGLE LMC_SC7 21841
1949		5 17 56.294	-69 40 25.61	DMA	HV2440	
1951		5 17 56.358	-69 47 21.14	1 m vs	HV2443	OGLE LMC_SC7 6499
1952		5 17 59.840	-69 30 07.84	DMA	HV2437	
1956		5 18 03.780	-69 25 35.92	DMA	HV2438	OGLE LMC_SC7 55964
1958	*	5 18 00.888	-69 44 10.86	1 m vs	HV5733	OGLE LMC_SC7 14079
1962	*	5 18 41.904	-69 38 22.99	1 m vs	HV12009	OGLE LMC_SC7 142153
1966		5 18 06.569	-69 39 00.54	1 m vs	HV12008	OGLE LMC_SC7 21940
1971		5 18 08.958	-69 50 43.67	DMA	HV5734	
1973		5 18 19.396	-68 52 34.99	DMA	HV5731	
1975		5 18 12.337	-69 43 33.82	1 m vs	HV5735	
1979		5 18 21.208	-69 03 05.23	DMA	HV5732	
1989		5 18 28.566	-69 40 03.31	1 m vs	HV5737	
1993		5 18 29.617	-69 48 40.97	DMA	HV5738	OGLE LMC_SC7 126780
2007		5 18 45.450	-69 03 21.79	DMA	HV2444	
2009		5 18 45.687	-69 06 32.58	DMA	HV5736	OGLE LMC_SC7 214432
2011		5 18 40.660	-69 38 58.53	DMA	HV5742	
2020		5 18 49.136	-69 21 29.36	1 m vs	HV2445	OGLE LMC_SC7 303837
2021		5 18 50.274	-69 16 36.12	DMA	HV5741	OGLE LMC_SC7 318572
2022		5 18 49.285	-69 35 22.80	1 m vs	HV5743	
2024		5 18 51.091	-69 39 12.82	DMA	HV12010	OGLE LMC_SC7 262813
2026		5 18 56.435	-69 34 02.78	1 m vs	HV5752	OGLE LMC_SC7 278113
2028		5 18 52.991	-70 04 18.19	1 m vs	HV2451	MACHO 5 18 53.0 -70 04 18
2033		5 19 03.701	-69 14 11.30	DMA	HV5744	
2035		5 19 02.616	-69 40 10.06	1 m vs	HV12011	OGLE LMC_SC7 262801
2044		5 19 15.830	-69 14 45.73	1 m vs	HV2448	OGLE LMC_SC7 318528
2045		5 19 11.812	-69 42 25.02	DMA	HV12012	EROS 1044
2047		5 19 14.850	-69 36 18.00	1 m vs	HV932	OGLE LMC_SC7 270379
2049		5 19 17.222	-69 30 25.25	1 m vs	HV5749	OGLE LMC_SC7 286535
2056		5 19 23.290	-69 09 54.23	1 m vs	HV5747	OGLE LMC_SC7 331967
2064		5 19 30.490	-68 41 09.55	DMA	HV2447	
2065		5 19 21.864	-69 39 04.94	1-M vs	HV12013	
2066		5 19 25.403	-69 18 26.70	DMA	HV5750	OGLE LMC_SC7 311535
2067		5 19 30.399	-68 57 36.78	1 m vs	HV2452	OGLE LMC_SC7 472701
2068		5 19 31.098	-68 53 41.21	DMA	HV5746	
2070		5 19 27.794	-69 30 30.44	1 m vs	HV2453	OGLE LMC_SC7 286532
2077		5 19 26.441	-69 51 50.87	DMA	HV5756	OGLE LMC_SC7 239698

Table 1 (continued)

1		2	3	4	5	6
2080	*	5 19 42.504	-68 44 57.91	1 m fs	HV5751	
2080	*	5 19 42.680	-68 44 54.72	1 m fs	HV5751	
2083		5 19 38.052	-69 37 44.62	1 m vs	HV2455	OGLE LMC_SC7 388032
2087	*	5 19 41.670	-69 28 37.36	1 m vs	HV12014	
2087	*	5 19 41.872	-69 28 35.86	1 m vs	HV12014	
2088		5 19 43.800	-69 22 53.88	1 m vs	HV5757	OGLE LMC_SC7 424850
2095		5 19 56.360	-68 35 50.28	DMA	HV5755	
2099		5 19 51.037	-69 28 23.93	DMA	HV12015	
2100		5 19 55.184	-69 09 44.10	DMA	HV5759	
2102		5 19 53.295	-69 27 33.60	DMA	HV5760	
2104		5 19 46.961	-70 15 30.52	DMA	HV2462	
2110		5 19 59.956	-69 10 25.51	DMA	HV933	OGLE LMC_SC7 447509
2111		5 19 58.749	-69 19 15.39	1 m vs	HV2456	OGLE LMC_SC7 432869
2115		5 20 04.545	-69 16 50.87	DMA	HV2458	OGLE LMC_SC7 440072
2122		5 20 03.977	-69 36 38.91	1 m vs	HV936	
2124		5 20 12.212	-69 02 01.82	1 m vs	HV2459	
2127		5 20 06.998	-70 04 09.34	DMA	HV2464	
2131		5 20 21.929	-68 43 02.51	DMA	HV2460	
2135		5 20 16.193	-69 25 05.51	DMA	HV5763	
2139		5 20 23.064	-69 02 17.54	1 m vs	HV5761	
2141		5 20 14.035	-70 06 26.51	DMA	HV5765	
2143		5 20 14.569	-70 06 59.71	DMA	HV5766	
2150		5 20 28.625	-69 01 31.85	DMA	HV2463	
2156		5 20 22.964	-70 02 33.07	1 m vs	HV937	OGLE LMC_SC6 11
2169		5 20 37.901	-69 08 52.34	1 m vs	HV5764	
2171		5 20 37.408	-69 30 56.71	1 m vs	HV2466	OGLE LMC_SC6 66530
2173		5 20 41.623	-69 07 34.85	1 m vs	HV2465	
2175		5 20 42.755	-69 08 50.96	1 m vs	HV5767	
2179		5 20 45.446	-69 12 56.50	1 m vs	HV5769	
2180		5 20 44.386	-69 22 24.44	DMA	HV5770	
2181		5 20 42.468	-69 42 57.21	DMA	HV12016	
2183		5 20 42.406	-70 09 50.23	1 m vs	HV5771	
2187		5 20 52.853	-69 37 40.39	1 m vs	HV2467	
2190		5 20 46.822	-70 31 06.96	DMA	HV12580	
2193		5 20 56.005	-69 48 20.61	DMA	HV939	OGLE LMC_SC6 149023
2194		5 20 56.399	-69 49 24.38	1 m vs	HV5772	
2195		5 20 54.145	-70 12 22.43	1 m vs	HV5773	
2200		5 21 12.488	-69 03 07.49	DMA	HV938	
2204	*	5 21 18.887	-69 11 47.54	DMA	HV5774	OGLE LMC_SC6 350603
2208		5 21 15.010	-69 49 33.85	1 m vs	HV2468	OGLE LMC_SC6 149017

Table 1 (continued)

1	2	3	4	5	6
2215	5 21 27.968	-69 30 16.31	DMA	HV12017	
2216	5 21 22.466	-70 10 31.84	DMA	HV2469	
2219 *	5 21 26.797	-70 08 38.71	DMA	HV5778	
2232	5 21 47.279	-69 20 41.05	1 m vs	HV5777	OGLE LMC_SC6 330218
2239	5 21 54.587	-69 23 05.22	DMA	HV2471	
2241	5 21 56.089	-69 19 06.60	DMA	HV5780	OGLE LMC_SC6 337291
2242	5 21 48.000	-70 09 57.11	1 m vs	HV942	
2243	5 21 49.146	-70 04 34.44	DMA	HV5779	OGLE LMC_SC6 242669
2244	5 22 01.181	-68 51 32.23	DMA	HV2470	
2247	5 21 48.265	-70 30 25.96	DMA	HV2473	
2249	5 22 01.967	-69 22 46.43	1 m vs	HV941	OGLE LMC_SC6 447868
2251	5 22 06.629	-68 56 31.02	DMA	HV940	
2254 *	5 21 51.090	-70 41 35.54	1 m fs	HV5786	
2269	5 22 22.765	-68 57 29.32	1 m fs	HV943	
2270	5 22 23.040	-68 56 34.28	1 m fs	HV5782	
2271	5 22 12.271	-70 04 31.35	1 m vs	HV2474	OGLE LMC_SC6 356428
2273	5 22 19.378	-69 37 54.76	1 m vs	HV944	OGLE LMC_SC6 404591
2275	5 22 20.721	-69 34 02.03	1 m vs	HV12018	
2277 *	5 22 28.455	-69 00 04.71	1 m fs	HV5784	
2277 *	5 22 28.462	-69 00 02.69	1 m fs	HV5784	
2282	5 22 25.581	-69 49 29.33	1 m vs	HV12019	OGLE LMC_SC6 384159
2283 *	5 22 27.356	-69 53 24.20	DMA	HV12020	OGLE LMC_SC5 26913
2284	5 22 31.053	-69 34 05.46	DMA	HV2475	
2287	5 22 29.409	-70 10 22.50	DMA	HV12021	
2291 *	5 22 34.863	-69 55 43.39	1 m vs	HV945	OGLE LMC_SC5 19786
2295 *	5 22 39.166	-69 58 09.54	1 m vs	HV2476	OGLE LMC_SC5 19806
2297	5 22 43.682	-69 37 20.59	1 m vs	HV946	
2300	5 22 40.187	-70 00 39.60	1 m vs	HV2477	OGLE LMC_SC5 12934
2301	5 22 41.073	-69 58 43.24	1 m vs	HV12022	OGLE LMC_SC5 13053
2303	5 22 44.170	-69 44 41.64	DMA	HV5790	
2307	5 22 48.274	-69 42 45.49	1 m vs	HV2478	OGLE LMC_SC5 49713
2311	5 22 44.464	-70 09 39.39	1 m vs	HV2481	
2313	5 22 43.195	-70 23 04.85	DMA	HV2484	
2317	5 22 50.582	-69 53 20.14	DMA	HV12023	OGLE LMC_SC5 26915
2318	5 22 56.284	-69 19 58.69	1 m vs	HV5791	OGLE LMC_SC5 99563
2319	5 22 51.939	-69 47 30.87	DMA	HV2480	OGLE LMC_SC5 41285
2326	5 22 58.344	-69 26 20.90	1 m vs	HV2479	
2330	5 22 52.881	-70 07 45.91	1 m vs	HV5792	OGLE LMC_SC5 94
2332	5 23 01.448	-69 27 07.72	1 m vs	HV2483	
2336	5 23 04.678	-69 16 57.47	DMA	HV2482	OGLE LMC_SC5 106184

Table 1 (continued)

1		2	3	4	5	6
2342		5 23 07.679	-69 33 49.91	1 m vs	HV12024	OGLE LMC_SC5 193998
2345		5 22 59.478	-70 33 24.35	DMA	HV2487	
2353		5 23 04.472	-70 31 13.70	DMA	HV12586	
2356		5 23 15.830	-69 53 58.19	DMA	HV12025	OGLE LMC_SC5 145323
2358		5 23 14.081	-70 06 24.35	DMA	HV12026	OGLE LMC_SC5 118861
2367		5 23 19.324	-69 53 35.29	1 m vs	HV947	OGLE LMC_SC5 145264
2370		5 23 29.053	-69 18 37.62	DMA	HV2488	OGLE LMC_SC5 220851
2371		5 23 27.188	-69 42 42.17	1 m vs	HV5797	
2384		5 23 37.906	-69 57 53.49	1 m vs	HV2489	OGLE LMC_SC5 138037
2385		5 23 35.025	-70 16 06.11	DMA	HV2490	
2387		5 23 39.188	-70 00 14.28	1 m vs	HV948	OGLE LMC_SC5 131209
2390	*	5 23 51.289	-69 13 55.73	DMA	HV5800	OGLE LMC_SC5 338247
2391		5 23 51.044	-69 07 30.77	DMA	HV5799	
2394		5 23 50.876	-69 20 54.33	DMA	HV12991	
2396		5 23 51.855	-69 20 20.34	DMA	HV12992	
2397		5 23 49.283	-69 39 30.20	DMA	HV12029	
2401		5 23 53.547	-69 20 50.50	DMA	HV5803	OGLE LMC_SC5 327787
2405		5 23 45.915	-70 25 01.38	DMA	HV5808	
2409		5 23 52.208	-70 03 30.15	1 m fs	HV5809	OGLE LMC_SC5 238336
2410		5 23 47.541	-70 30 13.34	DMA	HV2494	
2414		5 23 54.145	-70 10 05.82	DMA	HV2493	
2417	*	5 24 06.299	-69 25 11.54	1 m fs	HV2492	
2418	*	5 23 56.006	-70 29 32.09	DMA	HV12592	
2419	*	5 24 07.042	-69 23 36.87	RA fs	HV5810	
2422		5 24 04.144	-69 58 19.85	1 m vs	HV12030	OGLE LMC_SC5 251617
2424		5 24 06.456	-69 48 22.21	1 m vs	HV12031	OGLE LMC_SC5 267140
2436		5 24 17.141	-70 12 07.56	1 m fs	HV5817	
2437		5 24 21.333	-69 48 30.28	1 m vs	HV950	OGLE LMC_SC5 267138
2443		5 24 30.532	-69 11 20.91	DMA	HV5816	
2444		5 24 25.501	-69 46 19.03	1 m vs	HV12032	OGLE LMC_SC5 275412
2450		5 24 25.086	-70 10 23.66	1 m fs	HV2500	
2455		5 24 33.291	-69 36 40.27	DMA	HV2497	OGLE LMC_SC5 416554
2456		5 24 29.389	-70 09 58.64	DMA	HV2498	
2459		5 24 34.870	-69 44 19.72	1 m fs	HV2499	OGLE LMC_SC5 399066
2461		5 24 33.961	-69 54 48.66	DMA	HV2502	OGLE LMC_SC5 372083
2463		5 24 33.683	-69 56 21.94	1 m vs	HV954	OGLE LMC_SC5 364380
2470		5 24 41.407	-69 43 31.75	DMA	HV2503	OGLE LMC_SC5 399079
2475		5 24 45.253	-69 42 00.64	1 m fs	HV2506	OGLE LMC_SC5 399097
2491	*	5 24 55.953	-69 43 52.72	1 m fs	HV2508	OGLE LMC_SC5 399077

Remarks

The GCVS position is regarded as erroneous if it differs from the position in our catalogue by more than 3 arcsec at least in one coordinate.

V577	The star has a very close component excluding accurate position determination. The star position was derived from one plate of the 1 m reflector.
V635	The star images were measured on two plates of the astrograph. The coordinates are not very accurate.
V693	The GCVS position is erroneous.
V840	SY Dor n
V880	In V band, a complex image consisting at least of three very close images.
V883	The star has been measured on two plates of the astrograph. The coordinates are not very accurate.
V941	The GCVS position is erroneous.
V977	The GCVS position is erroneous.
V1018	The GCVS position is erroneous.
V1037	There are two components separated by 2.5 arcsec. We cannot indicate the varying component.
V1054	The GCVS position is erroneous.
V1058	The star images were measured on two plates of the astrograph and on one plate of the reflector.
V1073	Star images were measured on the astrograph plates. The coordinates are not very accurate.
V1077	SZ Dor
V1106	TT Dor
V1145	The star position has been derived from one plate of the reflector.

V1165 The GCVS position is erroneous.
V1225 Has a complex image in V band.
V1257 The position of the star has been derived from two astrograph plates in the reference frame of variable stars.
V1297 The GCVS position is erroneous.
V1303 There are two close components separated by 2 arcsec. We confirm the variability of both components. This star was regarded formerly as a single object.
V1310 The GCVS position is erroneous.
V1352 The GCVS position is erroneous.
V1385 The star was marked in disagreement with the remark for it in the atlas of Hodge and Wright, 1967. Instead of V1385 (HV2359), component to S and E was marked.
V1427 The coordinates have been derived from one plate of the 1 m reflector.
V1445 TU Dor
V1458 The GCVS position is erroneous.
V1462 The GCVS position is erroneous.
V1489 The GCVS position is erroneous.
V1493 The position has been derived from one plate of the reflector.
V1499 The GCVS position is erroneous.
V1658 The GCVS position is erroneous.
V1663 The GCVS position is erroneous.
V1687 TV Dor

V1689 There are two components. We believe that the NE one varies. The positions of both stars have been derived from one plate of the reflector.
V1709 According to Hodge and Wright, 1967 the star is double and the N component is probably the variable. Really it looks more complex than double. There are at least four very close, not separated components. In the catalogue, the coordinates of the N component are given.
V1743 The GCVS position is erroneous.
V1824 The GCVS position is erroneous.
V1883 The GCVS position is erroneous.
V1892 The GCVS position is erroneous.
V1918 OGLE LMC_SC8 337546.
V1926 The GCVS position is erroneous.
V1932 The GCVS position is erroneous.
V1947 There is a very close component to E, which excludes accurate position determination. The catalogue position has been derived from one plate of the 1 m reflector.
V1958 TW Dor
V1962 The GCVS position is erroneous.
V2080 There are two components. We cannot indicate which component varies. Their positions have been derived from one plate of the reflector.

V2087 There are two components, but we cannot indicate which of them varies. The position of the SW component has been derived from one plate of the 1 m reflector.

V2204 The GCVS position is erroneous.

V2219 The GCVS position is erroneous.

V2254 Has a complex image. There are at least three very close, not separated components. The declination is not very accurate.

V2277 There are two close components, N and S. We believe that S varies. The position of the S component has been derived from one plate of the reflector. The position of the N component is not very accurate.

V2283 OGLE LMC_SC6 377026.

V2291 OGLE LMC_SC6 369970.

V2295 OGLE LMC_SC6 369993.

V2390 The GCVS position is erroneous.

V2417 TY Dor n

V2418 The GCVS position is erroneous.

V2419 TX Dor

V2491 The star has a complex image and was measured with difficulties. Its position has been derived from one plate of the reflector.

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